

Applicant thanks the Examiner for the indication that claims 14-19 and 32 are allowable and claims 3, 4, 6-11, 22, 23 and 25-28 would be allowable if rewritten in independent form.

Claims 1, 2, 12, 13, 20, 21, 24, 29-31, 33 and 34 were rejected under 35 U.S.C. §102(b) as allegedly anticipated by U.S. Patent 5,993,369 to Sekita et al. Applicant has carefully considered the Examiner's comments and the cited art, and respectfully submits independent claims 1, 20, 30, 31, 33 and 34 are patentably distinct from the cited art, for at least the following reasons.

Independent claim 1 relates to a binding apparatus comprising a receiving device configured to receive a sheet from outside and convey the sheet, a sheet folding device configured to fold the sheet conveyed by the receiving device in two at a center portion thereof in a direction the sheet is conveyed so as to be a folded sheet and convey the folded sheet with the folded portion thereof being a leading edge of the folded sheet, a jogging device including a jogging table, configured to receive and jog the folded sheet, conveyed by the sheet folding device, one after another, so as to be stacked into a stack of folded sheets on the jogging table, a binding device configured to bind the stack of folded sheets stacked on the jogging table at an edge portion of the stack of folded sheets at the side where the folded portion of each folded sheet of the stack of folded sheets is located while the stack of folded sheets are on the jogging table and a discharging device configured to discharge the bound stack of folded sheets.

Sekita et al., as understood by Applicant, relates to a finisher with multiple sheet folders. A stapler 500 is disposed on the downstream side of additional-work tray unit 400 for

stapling (see column 5, lines 3 - 4). After jogging of a sheaf is completed in the additional-work tray unit 401, the sheaf is conveyed toward the stapler 500 for stapling (see column 17, line 24-29).

Accordingly, Applicant finds no teaching or suggestion in Sekita et al. of a binding device configured to bind the stack of folded sheets stacked on the jogging table at an edge portion of the stack of folded sheets at the side where the folded portion of each folded sheet of the stack of folded sheets is located while the stack of folded sheets are on the jogging table, as recited in independent claim 1.

Independent claims 30 and 31 are believed to be patentably distinct from the cited art, for at least similar reasons.

Independent claim 20 relates to a sheet folding and jogging apparatus, comprising a receiving device configured to receive a sheet from outside and convey the sheet, a sheet folding device configured to fold the sheet conveyed by the receiving device in two at a center portion thereof in a direction the sheet is conveyed so as to be a folded sheet and convey the folded sheet with the folded portion thereof being a leading edge of the folded sheet, a jogging device including a jogging table, configured to receive and jog the folded sheet, conveyed by the sheet folding device, one after another, so as to be stacked into a stack of folded sheets on the jogging table and a leading edge stopping device configured to stop the folded sheet at the folded portion leading edge so that the folded sheet is jogged with respect to the folded portion leading edge thereof.

In paragraph 8 of the Office Action, it is suggested that Sekita allegedly discloses that a

folded sheet is conveyed with the folded portion thereof being a leading edge of the folded sheet. Applicant respectfully disagrees.

In Sekita et al., as understood by Applicant, a leading edge stopper 409a effects the FD-alignment of the sheet (e.g., see Sekita et al, column 15, lines 20-23). However, as understood by Applicant, the leading edge stopper 409a does not stop the folded sheet at the folded portion thereof so that the folded sheet is jogged with respect to the folded portion thereof. Rather the leading edge stopper 409a stops the folded sheet at an edge of the folded sheet opposite the folded portion thereof so that the folded sheet is jogged with respect to the edge of the folded sheet opposite the folded portion thereof.

Accordingly, Applicant finds no teaching or suggestion in the cited art of a leading edge stopping device configured to stop the folded sheet at the folded portion leading edge so that the folded sheet is jogged with respect to the folded portion leading edge thereof, as recited in independent claim 20.

Independent claims 33 and 34 are believed to be patentably distinct from the cited art, for at least similar reasons.

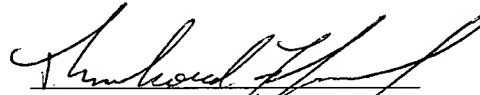
The Office is hereby authorized to charge any additional fees that may be required in connection with this amendment and to credit any overpayment to our Deposit Account No. 03-3125.

If a petition for an extension of time is required to make this response timely, this paper should be considered to be such a petition, and the Commissioner is authorized to charge the requisite fees to our Deposit Account No. 03-3125.

If a telephone interview could advance the prosecution of this application, the Examiner is respectfully requested to call the undersigned attorney.

Entry of this amendment and allowance of this application are respectfully requested.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Richard F. Jaworski", written over a horizontal line.

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VERSION WITH MARKINGS TO SHOW CHANGES IN THE CLAIMS

1. (Amended) A binding apparatus, comprising:

a receiving device configured to receive a sheet from outside and convey the sheet;

a sheet folding device configured to fold the sheet conveyed by the receiving device in two at a center portion thereof in a direction the sheet is conveyed so as to be a folded sheet and convey the folded sheet with the folded portion thereof being a leading edge of the folded sheet;

a jogging device including a jogging table, configured to receive and jog the folded sheet, conveyed by the sheet folding device, one after another, so as to be stacked into a stack of folded sheets on the jogging table;

a binding device configured to bind the stack of folded sheets stacked on the jogging table at an edge portion of the stack of folded sheets at the side where the folded portion of each folded sheet of the stack of folded sheets is located, while the stack of folded sheets are on the jogging table; and

a discharging device configured to discharge the bound stack of folded sheets.

20. (Twice Amended) A sheet folding and jogging apparatus, comprising:

a receiving device configured to receive a sheet from outside and convey the sheet;

a sheet folding device configured to fold the sheet conveyed by the receiving device in

two

at a center portion thereof in a direction the sheet is conveyed so as to be a folded sheet and convey the folded sheet with the folded portion thereof being a leading edge of the folded sheet;

a jogging device including a jogging table, configured to receive and jog the folded sheet, conveyed by the sheet folding device, one after another, so as to be stacked into a stack of folded sheets on the jogging table; and

a leading edge stopping device configured to stop the folded sheet at the folded portion leading edge so that the folded sheet is jogged with respect to the folded portion leading edge thereof.

30. (Amended) An image forming and binding system, comprising:

an image formation controller configured to generate and transmit image or document data with page and sheet size information and printing and binding instructions thereof; and

an image forming apparatus configured to form images of the image or document data received from the image formation controller on both sides of a sheet according to the page and sheet size information and the printing and binding instructions and discharge the sheet,

wherein the image forming apparatus forms a second page image and a third page image of images of four pages of the image or document data on a first side of the sheet, which upwardly faces when the sheet is exited from the image forming apparatus, with the second page image at a leading edge side of the sheet in a direction the sheet is conveyed, and

a first page image and a fourth page image of the images of four pages on a second side of the sheet, which downwardly faces when the sheet is exited from the image forming apparatus, with the first page image at the leading edge side of the sheet in the direction the sheet is conveyed, and

wherein the image formation controller controls the image forming apparatus to form the images of the image or document data starting from last four pages of the image or document data,

the system further including,

a binding apparatus including,

a controller to control an operation of the binding apparatus, the controller receiving the sheet size information and the binding instruction from the image formation controller,

a receiving device configured to receive the sheet discharged by the image forming apparatus and convey the sheet;

a sheet folding device configured to fold the sheet conveyed by the receiving device in two at a center portion thereon in the direction the sheet is conveyed according to the sheet size information and convey the folded sheet;

a jogging device including a jogging table, configured to receive and jog the folded sheet, conveyed by the sheet folding device, one after another, so as to be stacked into a stack of folded sheets on the jogging table according to the sheet size information;

a binding configured to bind the stack of folded sheets stacked on the jogging

table at an edge portion of the stack of folded sheets at the side where the folded portion of each folded sheet of the stack of folded sheets is located according to the binding instruction, while the stack of folded sheets are on the jogging table; and

a discharging device configured to discharge the bound stack of folded sheets.

31. (Amended) A binding apparatus comprising:

receiving means for receiving a sheet from outside and conveying the sheet;

sheet folding means for folding the sheet conveyed by the receiving means in two at a center portion thereof in a direction the sheet is conveyed so as to be a folded sheet and conveying the folded sheet with the folded portion thereof being a leading edge of the folded sheet;

jogging means including a jogging table, for receiving and jogging the folded sheet, conveyed by the folding means, one after another, so as to be stacked into a stack of folded sheets on the jogging table;

binding means for binding the stack of folded sheets stacked on the jogging table at an edge portion of the stack of folded sheets at the side where the folded portion of each folded sheet of the stack of folded sheets is located, while the stack of folded sheets are on the jogging table; and

discharging means for discharging the bound stack of folded sheets.

33. (Twice Amended) A sheet folding and jogging apparatus, comprising:

receiving means for receiving a sheet from outside and conveying the sheet;

folding means for folding the sheet conveyed by the receiving means in two at a center portion thereof in a direction the sheet is conveyed so as to be a folded sheet, and conveying the folded sheet with the folded portion thereof being a leading edge of the folded sheet;

jogging means including a jogging table, for receiving and jogging the folded sheet, conveyed by the folding means, one after another, so as to be stacked into a stack of folded sheets on the jogging table; and

leading edge stopping means configured to stop the folded sheet at the folded portion leading edge so that the folded sheet is jogged with respect to the folded portion leading edge thereof.

34. (Amended) An image forming and binding system, comprising:

data generating means for generating and transmitting image or document data with page and sheet size information and printing and binding instructions thereof; and

image forming means for forming images of the image or document data received from the [date] data generating means on both sides of a sheet according to the page and sheet size information and the printing and binding instructions and discharge the sheet,

wherein the image forming means forms a second page image and a third page image of images of four pages on a first side of the sheet, which upwardly faces when the sheet is exited from the image forming means, with the second page image at a leading edge side of the sheet in a direction the sheet is conveyed, and a first page image and a fourth page image of

the images of four pages on a second side of the sheet, which downwardly faces when the sheet is exited from the image forming means, with the first page image at the leading edge side of the sheet in the direction the sheet is conveyed, and

wherein the image formation controlling means controls the image forming means to form the images of the image or document data starting from last four pages of the image or document data,

the system further including,

a binding apparatus including,

controlling means for controlling an operation of the binding apparatus
the controlling means receiving the sheet size information and the binding instruction from the data generating means[.];

receiving means for receiving and conveying the sheet discharged by the
image forming means;

folding means for folding the sheet conveyed by the receiving means in two at
a center portion thereon in the direction the sheet is conveyed according to the sheet size
information and for conveying the folded sheet;

jogging means including a jogging table, for receiving and jogging the folded
sheet conveyed by the folding means one after another into a stack of folded sheets on the
jogging table according to the sheet size information;

binding means for binding the stack of folded sheets stacked on the jogging
table at an edge portion of the stack of folded sheets at the side where the folded portion of

each folded sheet of the stack of folded sheets is located according to the binding instruction,
while the stack of folded sheets are on the jogging table; and

discharging means for discharging the bound stack of folded sheets.